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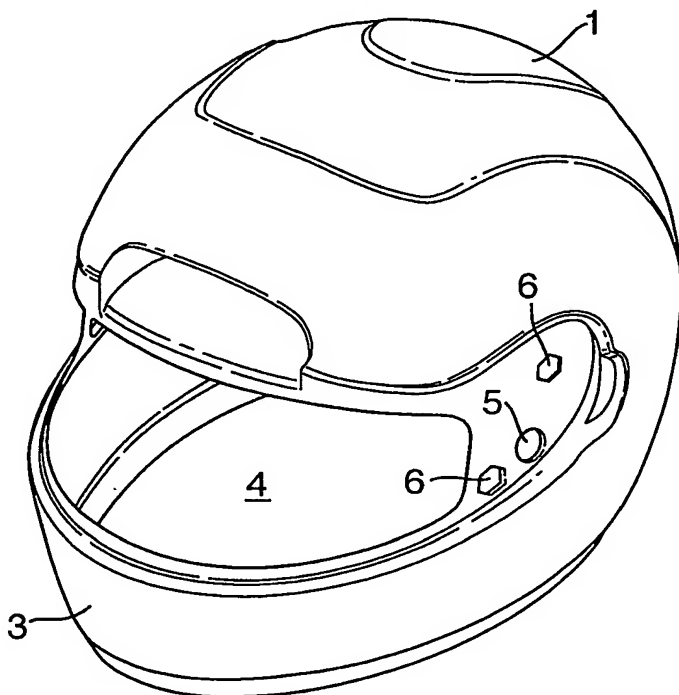
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(54) Title: SAFETY HELMETS



(57) Abstract: A low mass safety helmet is provided, containing a sandwich of polymer composite materials to produce an effective means of shock mitigation to a wearer's head. The sandwich comprises an inner and outer layer of fibre reinforced polymer which encapsulates a pre-formed energy dispersive material which is typically a high impact resistant foam. Optionally, on the inside surface of the inner layer which is adjacent to the wearer's head there may also be fitted a comfort liner, manufactured from either a low density impact foam or a material or plastic lattice, to provide comfort to the wearer and protection from low energy impacts. The use of a preformed foam liner in the manufacturing of the helmet allows for accurate dimensional tolerances to be achieved, thus allowing helmets which can meet the requirements for both military and civilian use to be manufactured by mass production techniques.

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